



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,982	08/16/2004	Makoto Izawa	22040-00037-US1	4981

30678 7590 08/06/2008
CONNOLLY BOVE LODGE & HUTZ LLP
1875 EYE STREET, N.W.
SUITE 1100
WASHINGTON, DC 20036

EXAMINER

KHOSHNOODI, NADIA

ART UNIT	PAPER NUMBER
----------	--------------

2137

MAIL DATE	DELIVERY MODE
-----------	---------------

08/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/710,982	Applicant(s) IZAWA ET AL.	
	Examiner NADIA KHOSHNOODI	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/21/2008 has been entered.

Response to Amendment

Applicant's arguments/amendments with respect to pending claims 1-8 filed 5/21/2008 have been fully considered and therefore the claims are rejected under new grounds.

Drawings

Figures 1 and 2A-2B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (based on the description in par. 15 of Applicants Specification). See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Paragraph 26 of Applicants Specification refers to Fig. 2 in line 1, where the description references elements in Fig. 2A. Thus, this portion of the Specification should be amended from Fig. 2 to Fig. 2A since no Fig. 2 exists.

Title

The title of the invention “Encryption Apparatus, Encryption Method, and Encryption System” is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Receiving Encrypted Data and Outputting Data via Data Link Layer to Avoid Routing. This is merely a suggested title, if Applicants prefer, they may suggest another title keeping in mind that it must be more descriptive than the originally chosen title.

Abstract

The abstract of the disclosure is objected to because in lines 1 and 3-8, references are made to various elements numbered in various figures. The numeral reference should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 1 is objected to because of the following informalities: Applicants may want to amend the last two lines of the claim “without being performed any routing process” to be rewritten as “without any routing process being performed.” This correction is suggested.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1:

Claim 1 recites the limitation "the non-encrypting capability" in line 6. There is insufficient antecedent basis for this limitation in the claim since only terminals having encryption capabilities were previously introduced.

****Claims not specifically addressed are rejected by virtue of their dependency.**

Claim Rejections - 35 USC § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funabe et al., US Patent No. 6,016,350, and further in view of Droge, US Patent No. 7,076,651.

As per claim 1:

Funabe et al. substantially teach an encryption apparatus, comprising: a plurality of ports to at least one of which a terminal having an encrypting capability can be directly or indirectly connected (col. 6, lines 38-44); and encryption/decryption means for performing an encrypting process and a decrypting process on data to terminate encryption-based security between the terminal having the encrypting capability and/or the non-encrypting capability (col. 6, lines 57-61 and col. 11, lines 14-35).

Not explicitly disclosed is a bridge means in a data link layer for allowing data, which has been received with one of the plurality of ports and then on which the encrypting or decrypting process has been performed, to be outputted as it is from another port without being performed any routing process. However, Droge teaches that the data link layer may be used to perform encryption/decryption processes as well as outputting the data to the modem line which transmits the data, without routing, to a first interface (col. 6, lines 62-65). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Funabe et al. to have the bridge means in the data link layer to output the data from another port, i.e. the modem, once the data link layer has performed the encryption/decryption. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Droge suggests that using the data link layer to harbor the bridge means allows for various mechanisms to be used, one of which is IPSEC, in col. 7, lines 1-14.

As per claim 2:

Funabe et al. and Droge substantially teach the encryption apparatus according to claim 1. Furthermore, Funabe et al. teach wherein the encryption/decryption means performs the

Art Unit: 2136

encrypting process and the decrypting process on data, so that the encryption apparatus receives and retransmits data in the form of encrypted data from and to the terminal having the encrypting capability, and the encryption apparatus receives and retransmits the data in the form of non-encrypted data from and to the terminal having no encrypting capability (col. 6, lines 29-61 and col. 7, lines 4-30).

As per claim 3:

Funabe et al. substantially teach an encryption apparatus, comprising: a plurality of ports to at least one of which a terminal having an encrypting capability can be directly or indirectly connected (col. 6, lines 38-44); encryption/decryption means for performing an encrypting process or a decrypting process on data which has been received with one of the plurality of ports and then has passed through a physical layer and a data link layer (col. 6, lines 57-61 and col. 11, lines 14-35).

Not explicitly disclosed is a bridge means in the data link layer for passing the encrypted or decrypted data to the data link layer and the physical layer without passing said data to a network layer in which routing between networks is controlled, and then sending said data to another port so as to be outputted from said port. However, Droge teaches that the data link layer may be used to perform encryption/decryption processes as well as outputting the data to the modem line which transmits the data, without routing, to a first interface (col. 6, lines 31-37 and lines 62-65). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Funabe et al. to have the bridge means in the data link layer to output the data from another port, i.e. the modem, once the data link layer has performed the encryption/decryption. This modification would have been obvious because a

person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Droge suggests that using the data link layer to harbor the bridge means allows for various mechanisms to be used, one of which is IPSEC, in col. 7, lines 1-14.

As per claim 4:

Funabe et al. and Droge substantially teach the encryption apparatus according to claim 3. Funabe et al. teach the apparatus further comprising setting information storage means for storing setting information for controlling the encrypting process and the decrypting process, wherein the encryption/decryption means controls the encrypting process and the decrypting process by comparing the setting information stored in the setting information storage means with header information of a data packet of the data received with one of the plurality of ports (col. 5, lines 9-25).

As per claim 5:

Funabe et al. substantially teach an encrypting method for performing an encrypting process and a decrypting process using an encryption apparatus, the apparatus having a plurality of ports to at least one of which a terminal having an encrypting capability can be directly or indirectly connected (col. 6, lines 38-44), the method comprising the steps of: performing the encrypting or decrypting process on data which has been received with one of the plurality of ports and then has passed through a data link layer and a physical layer (col. 6, lines 57-61 and col. 11, lines 14-35).

Not explicitly disclosed is outputting the encrypted or decrypted data from another port through the physical layer and a bridge means in the data link layer, without passing said data to a network layer in which routing between networks is controlled. However, Droge teaches that

Art Unit: 2136

the data link layer may be used to perform encryption/decryption processes as well as outputting the data to the modem line which transmits the data, without routing, to a first interface (col. 6, lines 31-37 and lines 62-65). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Funabe et al. to have the bridge means in the data link layer to output the data from another port, i.e. the modem, once the data link layer has performed the encryption/decryption. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Droge suggests that using the data link layer to harbor the bridge means allows for various mechanisms to be used, one of which is IPSEC, in col. 7, lines 1-14.

As per claim 6:

Funabe et al. and Droge substantially teach the encryption system, comprising: an encryption apparatus according to claim 1. Furthermore, Droge teaches a terminal having an encrypting capability which can be connected to the encryption apparatus through a wireless or cable network (col. 4, lines 34-36).

As per claim 7:

Funabe et al. and Droge substantially teach the encryption system, comprising: a terminal having an encrypting capability; a terminal having no encrypting capability; and an encryption apparatus according to claim 2. Furthermore, Funabe et al. teach the system which can be connected between the terminal having the encrypting capability and the terminal having no encrypting capability through a wireless or cable network (col. 6, lines 38-61).

As per claim 8:

Funabe et al. and Droge substantially teach the encryption apparatus according to claim 2. Furthermore, Funabe et al. teach wherein the encryption/decryption means performs the decrypting process on encrypted data and then sending said data to a terminal having no encrypting capability when the encryption apparatus receives said encrypted data from another terminal having an encrypting capability and retransmits said data to the terminal having no encrypting capability, and performs the encrypting process on non-encrypted data and then sending said data to a terminal having an encrypting capability when the encryption apparatus receives said non-encrypted data from another terminal having no encrypting capability and retransmits said data to the terminal having the encrypting capability (col. 6, lines 29-61 and col. 7, lines 4-30).

**References Cited, Not Used*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US Patent No. 6,640,248
2. US Patent No. 6,708,218

The above references have been cited because they are relevant due to the manner in which the invention has been claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2136

NK

/Nadia Khoshnoodi/
Examiner, Art Unit 2137
8/1/2008